

# MOU EARLY IMPACTS EVALUATION

## LOCATION - COLTON, CALIFORNIA

**DESCRIPTION OF OPERATIONS** - Activities at the Yard include; receiving inbound trains, switching cars, servicing local industries by picking up and delivering freight cars, building and departing outbound trains, repairing freight cars, and servicing and repairing locomotives. Facilities within the Yard include; a hump yard, classification tracks, a locomotive service track, two (2) locomotive shops, a freight car repair shop, an on site wastewater treatment plant, maintenance of way buildings and storage areas, and various buildings and facilities supporting railroad operations.

Source Area	Activity Description	Typical Loco. Model*	Option Number	Description of Option	Is the Option Feasible for UPRR? **						Go?	Notes	
					Technically	Legally	Operationally	Economically	Safety	Other			
1	Movement into & out of the Yard												
1a	Movement	Road fleet											
			1	Discontinue use of area	-	-	No	No	-	-	NO	must move into & out of yards	
			2	Relocate Operation	-	-	?	?	-	-	?	will need to re-evaluate	
			3	Dedicate Tier 2 units	Yes	Yes	LT	LT	Yes	-	NO	fleet will naturally turn over in time	
			4	Retrofit w/ ICD's	Yes	Yes	Yes	LT	Yes	Yes	LT	will likely occur after LHP units	
			5	Manual Shutdown	Yes	Yes	Yes	Yes	Yes	Yes	YES	udpated training program is under way	
			6	Use LNG units	No	Yes	No	No	No	No	NO	significant serious issues	
			7	Use CARB diesel	Yes	Yes	No	-	-	-	NO	CARB fuel not available outside Ca	
			8	Use specialty fuels	No	Yes	No	No	-	-	NO	I.e.-biodiesel/lubrizol; quality/supply issues	
			9										
10													
11													
1b	Movement	Local fleet											
			1	Discontinue use of area	-	-	No	No	-	-	NO	must move into & out of yards	
			2	Relocate Operation	-	-	?	?	-	-	?	will need to re-evaluate	
			3	Dedicate ULEL switchers	Yes	Yes	LT	LT	Yes	-	NO	fleet will naturally turn over in time	
			4	Retrofit w/ ICD's	Yes	Yes	Yes	Yes	Yes	Yes	YES	currently in process	
			5	Manual Shutdown	Yes	Yes	Yes	Yes	Yes	Yes	YES	udpated training program is under way	
			6	Use LNG units	No	Yes	No	No	No	No	NO	significant & serious issues	
			7	Use CARB diesel	Yes	Yes	No	-	-	-	NO	CARB fuel to be used in Ca	
			8	Use specialty fuels	No	Yes	No	No	-	-	NO	I.e.-biodiesel/lubrizol; quality/supply issues	
			9										
10													
11													
2	Idling & movement w/in location												
2a	Idling	Road fleet											
				See Source Area 1a for options associated with movement ofRoad fleet locomotives.									
2b	Idling	Local fleet											
				See Source Area 1b for options associated with movement of Local fleet locomotives.									
2c	Idling	Mixed fleet											
				See Source Area 1a for options associated with movement of the mixed fleet locomotives.									
3	Idling at Svc Trk, Modsearch, Shop & Ready Tracks												

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					Technically	Legally	Operationally	Economically	Safety	Other			
3a	Idling	Mixed fleet											
				See Source Area 1a for options associated with movement of Mixed fleet 1 locomotives.									
3b	Idling	Shop fleet											
				See Source Area 1a for options associated with movement of Shop fleet locomotives.									
	Movement between Svc Trk, Load Test, & Locomotive Shop												
3e	Movement	Shop fleet											
				See Source Area 1a for options associated with movement of Shop fleet locomotives.									
3f	Movement	Shop fleet											
				See Source Area 1a for options associated with movement of Shop fleet locomotives.									
	Testing at Svc Trk, Load Test, & Locomotive Shop												
3g	Testing	Test fleet											
			1	Discontinue use of area	-	-	No	No	-	-	NO	must move into & out of yards	
			2	Relocate Operation	Yes	Yes	?	?	?	-	?	will need to re-evaluate	
			3	Dedicate Tier 2 units	Yes	Yes	No	No	Yes	-	NO	tested fleet varies day to day	
			4	Retrofit w/ ICD's	Yes	Yes	Yes	LT	Yes	Yes	LT	will likely occur after LHP units	
			5	Manual Shutdown	Yes	Yes	Yes	Yes	Yes	Yes	YES	udpated training program is under way	
			6	Use LNG units	No	Yes	No	No	No	No	NO	significant serious issues	
			7	Use CARB diesel	Yes	Yes	No	-	-	-	NO	CARB fuel not available outside Ca	
			8	Use specialty fuels	No	Yes	No	No	-	-	NO	I.e.-biodiesel/lubrizol; quality/supply issues	
			7	Ins exhaust hood/scrub	No	Yes	Yes	No	?	-	NO	proof of concept under way at Roseville	
			9	Modify test proceedure	Yes	No	?	?	-	-	NO	previously completed	
			10										
11													
4	Hump & Trim Operations												
4a	Train Building	Hump sets											
			1	Discontinue use of area	-	-	No	No	-	-	NO		
			2	Dedicate Tier 2 units	Yes	Yes	No	No	-	-	NO		
			3	Dedicate Tier 2 Retrofit	No	Yes	Yes	No	-	-	No	GETS Kits	
			4	Dedicate Green Goats	Yes	Yes	No	Yes	Yes	-	YES	assumes Goats will not work	
			5	Dedicate GSH's	Yes	Yes	Yes	Yes	Yes	-	YES	assumes GSH will work	
			6	Dedicate CAT Switcher	Yes	Yes	Yes	Yes	Yes	-	YES	likely that GP20D will 'work'	
			7	Retrofit w/ ICD's	Yes	Yes	Yes	Yes	-	-	YES	All are/will be retrofitted	
			8	Manual Shutdown	Yes	Yes	Yes	Yes	-		YES	Extremely critical operation - monitor closely	
			9	Use LNG units	No	Yes	No	No	?	No	NO	technical/safety/logistics issues	
			10	Use CARB diesel	Yes	Yes	No	-	-	-	NO	Cannot get CARB out of state	
			11	Electrify the hump	Yes	Yes	?	No	No	-	NO	will need to evaluate	
			12	Use specialty fuels	Yes	Yes	No	-		-	NO	I.e.-biodiesel/lubrizol; quality/supply issues	
			13										
			14										

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					Technically	Legally	Operationally	Economically	Safety	Other		
			15									
4b	Train Building	Trim sets										
				See Source Area 4a for options associated with Trian Building at Trim operations								
5	Movement between Areas of the Yard											
5a	Movement	Road fleet										
				See Source Area 1a for options associated with movement of Road fleet locomotives.								
5b	Movement	Local fleet										
				See Source Area 1b for options associated with movement of Local fleet locomotives.								
6	Other											
8a												
8b												
8c												
8d												

## \* Typical Locomotive Models (fleet descriptions)

The **Road** fleet is comprised of high horsepower locomotives that pull large numbers of cars long distances between terminals/major yards.

The **Local** fleet is comprised of lower horsepower locomotives that deliver fewer cars (possilby up to 40) shorter distances between industry and terminals/major yard.

The **Mixed fleet** is comprised of both Road and Local fleets.

**Hump/trim sets** are dedicated 6 axle locomotives that work in classification/hump yards

**Tested fleet** is comprised of both Road and Local fleets.

\*\* When evaluating the feasibility of an option, answers entered above indicate the following;

**Yes**, it appears to be feasible given current technology

**No**, it does not appear to be feasible at this time

**?** . . . . means that thte option may be possible, yet needs more thorough evaluation

**LT** . . . . . **Long Term option** that may be feasible in the future, yet is not part of this 'Early Impacts' analysis.

**All feasibility criteria must be answered 'Yes' for the option to be labeled 'Yes' in the 'Go?' Column.**